IN THE CLAIMS

Claim 1 (previously presented): In a hearing instrument including a plurality of transducers, a self-diagnostics system, comprising:

a detection circuitry operable to monitor the functional status of at least one transducer by measuring an energy level output of the transducer and comparing the energy level output to a pre-determined threshold level;

the detection circuitry being further operable to generate an error message output if the measured energy level output of the transducer falls below the pre-determined threshold level; and

a memory device coupled to the detection circuitry and operable to store the error message output generated by the detection circuitry;

wherein the detection circuitry is further operable to generate a test tone that is directed into the ear canal of a hearing instrument user by a hearing instrument loudspeaker, the detection circuitry generating the test tone if the measured energy level output of the transducer falls below the pre-determined level; and

the detection circuitry being further operable to monitor an inner microphone to detect the test tone.

Claim 2 (previously presented): The self-diagnostics system of claim 1, further comprising:

an error indicator coupled to the detection circuitry and operable to activate an error indicia for communicating a possible transducer malfunction to a hearing instrument user; and

the detection circuitry being further operable to cause the error indicator to activate the error indicia if the measured energy level output of the transducer falls below the pre-determined threshold level.

Claim 3 (previously presented): The self-diagnostics system of claim 2, wherein the error indicia is an indicator light.

Claim 4 (previously presented): The self-diagnostics system of claim 3, wherein the error indicia includes a tone generator that generates an error tone.

Claim 5 (previously presented): The self-diagnostics system of claim 1, wherein the transducer is an outer microphone.

Claim 6 (previously presented): The self-diagnostics system of claim 1, wherein the transducer is an inner microphone.

Claim 7 (previously presented): The self-diagnostics system of claim 1, wherein the hearing instrument includes a programming port, and wherein the error message may be downloaded from the memory device via the programming port.

Claims 8-24 (canceled)

Claim 25 (previously presented): An apparatus comprising:

a hearing aid including an outer microphone configured to be directed outside an ear canal, and an inner microphone and a speaker both configured to be directed into the ear canal, the hearing aid being configured to:

receive sounds through the outer microphone and output the sounds through the speaker;

monitor the energy level that is output by the inner microphone as a function of the sound detected by the inner microphone; and

in response to the energy level falling below a threshold value, send an electrical test tone signal to the speaker for the speaker to output a resulting test tone; and

sense whether the inner microphone detects the resulting test tone.

Claim 26 (previously presented): The apparatus of claim 25 wherein the hearing aid is further configured, after the sense step, to:

generate an indication that the speaker is faulty if other noise is detected by the inner microphone, and generate an indication that the inner microphone is faulty if other noise is not detected by the inner microphone.

Claim 27 (currently amended): The apparatus of claim 25 wherein the hearing aid is further configured to ~~An apparatus comprising:~~

~~a hearing aid including an outer microphone configured to be directed outside an ear canal, and an inner microphone and a speaker both configured to be directed into the ear canal, the hearing aid being configured to:~~

~~receive sounds through the outer microphone and output the sounds through the speaker;~~

~~send an electrical test tone signal to the speaker for the speaker to output a resulting test tone for the inner microphone to detect the resulting test tone; and~~

~~if the inner microphone does not detect the resulting test tone, then~~ generate an indication that the speaker is faulty if the inner microphone does not detect the resulting test tone and other noise is detected by the inner microphone, and generate an indication that the inner microphone is faulty if other noise is not detected by the inner microphone.

Claim 28 (previously presented): The apparatus of claim 27 wherein the hearing aid is configured to store the indication in an electronic memory of the hearing aid and to later download the indication through a programming port.

Claim 29 (previously presented): The apparatus of claim 27 wherein the hearing aid is configured to communicate the indication to the user through another hearing aid in the user's other ear.

Claim 30 (previously presented): An apparatus comprising:

a hearing aid including an outer microphone configured to be directed outside an ear canal and a speaker configured to be directed into the ear canal, the hearing aid being configured to:

receive sounds through the outer microphone and output the sounds through the speaker; and

concurrently with the receive and output step and without participation of an external device or person, monitor a performance parameter of the hearing aid, determine a malfunction from a value of the parameter, and generate an indication of the malfunction.

Claim 31 (previously presented): The apparatus of claim 30 wherein the parameter is energy level output by the outer microphone.

Claim 32 (previously presented): The apparatus of claim 30 wherein the hearing aid has an inner microphone directed into the ear canal and configured to detect the sound output by the speaker, and the parameter is energy level output by the inner microphone.

Claim 33 (previously presented): The apparatus of claim 30 wherein the hearing aid is configured to store the malfunction indication in an electronic memory of the hearing aid and to later download the indication through a programming port of the hearing aid.

Claim 34 (previously presented): The apparatus of claim 30 wherein the hearing aid is configured to communicate the malfunction indication to the user through another hearing aid in the user's other ear.

Claim 35 (previously presented): An apparatus comprising:

a hearing aid including a battery for powering the hearing aid, an outer microphone configured to be directed outside an ear canal and a speaker configured to be directed into the ear canal, the hearing aid being configured to:

receive sounds through the outer microphone and output the sounds through the speaker; and

generate an indication of a malfunction in response to a variation in current drain of the battery exceeding a threshold value.

Claim 36 (previously presented): The apparatus of claim 30 wherein the hearing aid is configured to communicate the malfunction indication to the user.

Claim 37 (new) The apparatus of claim 35 wherein the hearing aid is configured to communicate the malfunction indication to the user.